

TECHNICAL DATA SHEET

Wallshell® U-Shield™ Panel



Characteristics

Application

Use as the exterior wall panel component with exterior insulation and a decorative finish in Wallshell® exterior wall system. The fully engineered rain screen system with a rear ventilation design removes excess moisture and heat.

Description

Wallshell® U-shield™ panel is made from high-density fiber cement slabs, it has a large variety of textures and colors to meet customers' diverse design needs. U-shield™ is a concealed panel, the panel use undercut for anchoring. U-shield™ panel has a highly effective protection layer that gives the panel long-lasting functional reliability.

Panel

Thickness

Thickness of carrier board (mm) : 10, 12, 15
Thickness of finish coating (μm) : 95~120

Sizes

All measurements are in mm:

488 x 1220;

812 x 1220;

1220 x 406; 1220 x 610;

2440 x 406; 2440 x 610; 2440 x 1220.

Please refer to list of product catalog.

Attention: Wallshell® U-shield™ panels are delivered without drill anchor holes.
Wallshell® U-shield™ panel size is subject to be cut on site to meet the technical requirements.

Panel Technical Data

Properties		Test Method	Average Value
Dimensional Measurements		ASTM C1186	Pass
Flexural Strength (Equilibrium Conditioning)	10mm thick panel	ASTM C1185	22.7MPa
	12mm thick panel	ASTM C1185	21.3MPa
	15mm thick panel	ASTM C1185	19.3MPa
Flexural Strength (Wet Conditioning)	10mm thick panel	ASTM C1185	16.4Mpa
	12mm thick panel	ASTM C1185	16.0MPa
	15mm thick panel	ASTM C1185	15.4MPa
Density		ASTM C1185	1.64 g/cm ³
Linear Change in Moisture Content		ASTM C1185	0.070%
Moisture Content		ASTM C1185	6.6%
Swelling Rate		ASTM C1185	0.15%
Water Absorption		ASTM C1185	14.9%
Water Tightness		ASTM C1185	Pass
Freeze-Thaw		ASTM C1185	Pass
Warm Water Resistance		ASTM C1185	Pass
Heat Rain Resistance		ASTM C1185	Pass
Falling Ball Impact		ASTM D1037	Pass (10J)
Flame Spread Index		ASTM E84	0
Smoke Developed Index		ASTM E84	0
Insulation Non-Combustibility		ASTM E136	Pass
Combustion Characteristics Mass Loss		ASTM E136	16.33%
Combustion Characteristics Temperature Rise		ASTM E136	15 °C

Finish Surface Acid Resistance	48 hour	No Abnormity
Finish Surface Alkali Resistance	96 hour	No Abnormity
Finish Surface Salt Resistance	500 hour	No Abnormity
Finish Surface Accelerated Aging	1000 hour	No Abnormity
Unit Weight	10mm thick panel	16.40 kg/m ²
	12mm thick panel	19.68 kg/m ²
	15mm thick panel	24.60 kg/m ²

12mm-Thick Panel Technical Data

Ultimate Pressure Load (Positive Pressure)*	ASTM E330	9166 Pa
Ultimate Pressure Load (Negative Pressure)*	ASTM E330	10100 Pa
Drawing Force of Anchoring System	ASTM C1354	1450 N
Shear Force of Anchoring System	ASTM C1354	2496 N

* Maximum wind load due to environment constraints.

CG Anchor System

C-profile Clip and G-profile Clip or G-profile Rail
 L-profile Bracket and L-profile Extrusion
 T-Profile Rail
 Undercut
 A2 Adjuster
 Fastener

Please refer to installation manual

Substrate Requirements

Structural Substrate, such as concrete share wall, or metal framed share wall that is established with vapor barrier.

Delivery

Packaging
 Wooden crate

Storage

Storage Conditions

Dry condition

Application Requirements

Apply Wallshell® SE Edge Sealant : Thoroughly cover all the cuttings and holes.

Special Information

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